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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/816,351	03/31/2004	Krishnasamy Anandakumar	TI-28906.1	8819

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EXAMINER	
MOORE JR, MICHAEL J	
ART UNIT	**PAPER NUMBER**
2619	

NOTIFICATION DATE	DELIVERY MODE
03/28/2008	ELECTRONIC

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

uspto@ti.com
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Office Action Summary	Application No.	Applicant(s)	
	10/816,351	ANANDAKUMAR ET AL.	
	Examiner	Art Unit	
	MICHAEL J. MOORE JR	2619	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE *3* MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *12/19/2007*.

2a)☒ This action is **FINAL**. 2b)☐ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1 and 281-294* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1 and 281-294* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ .
5) ☐ Notice of Informal Patent Application
6) ☐ Other: _____.

DETAILED ACTION

Priority

1. Applicant's claim for the benefit of a prior-filed application under 35 U.S.C. 119(e) or under 35 U.S.C. 120, 121, or 365(c) is acknowledged. Specifically, this application filed as a continuation of application no. 09/461,155, now U.S. 6,757,256, is acknowledged.

Specification

Amendments made by Applicant to paragraphs of the specification replacing attorney docket numbers with corresponding application numbers and U.S. Patent numbers are proper and have been entered.

Double Patenting

2. The nonstatutory double patenting rejection is based on a judicially created doctrine grounded in public policy (a policy reflected in the statute) so as to prevent the unjustified or improper timewise extension of the "right to exclude" granted by a patent and to prevent possible harassment by multiple assignees. A nonstatutory obviousness-type double patenting rejection is appropriate where the conflicting claims are not identical, but at least one examined application claim is not patentably distinct from the reference claim(s) because the examined application claim is either anticipated by, or would have been obvious over, the reference claim(s). See, e.g., *In re Berg*, 140 F.3d 1428, 46 USPQ2d 1226 (Fed. Cir. 1998); *In re Goodman*, 11 F.3d 1046, 29 USPQ2d 2010 (Fed. Cir. 1993); *In re Longi*, 759 F.2d 887, 225 USPQ 645 (Fed. Cir. 1985); *In re Van Ornum*, 686 F.2d 937, 214 USPQ 761 (CCPA 1982); *In re Vogel*, 422 F.2d 438, 164 USPQ 619 (CCPA 1970); and *In re Thorington*, 418 F.2d 528, 163 USPQ 644 (CCPA 1969).

A timely filed terminal disclaimer in compliance with 37 CFR 1.321(c) or 1.321(d) may be used to overcome an actual or provisional rejection based on a nonstatutory double patenting ground provided the conflicting application or patent either is shown to be commonly owned with this application, or claims an invention made as a result of activities undertaken within the scope of a joint research agreement.

Effective January 1, 1994, a registered attorney or agent of record may sign a terminal disclaimer. A terminal disclaimer signed by the assignee must fully comply with 37 CFR 3.73(b).

3. Claim **1** is rejected on the ground of nonstatutory obviousness-type double patenting as being unpatentable over claim **1** of U.S. Patent No. 6,757,256 in view of Hörlin (U.S. 6,212,162).

Regarding claim **1**, "a process of sending packets of voice information" corresponds to "a process of sending packets of real-time information" of the above U.S. Patent claim 1.

"Initially generating at a sender the packets of voice information, the packets of voice information including source packets with an initial source rate greater than zero kilobits per second, and diversity packets with an initial diversity rate, the initial diversity rate being at least zero kilobits per second" corresponds to "generating at a sender the packets of real-time information" and "sending the packets on the network with a first source rate greater than zero kilobits per second and a first diversity rate of at least zero kilobits per second" of the above U.S. Patent claim 1.

"Sending the packets, thereby resulting in a quality of service QoS" corresponds to "the sending the packets on the network resulting in a quality of service" of the above U.S. Patent claim 1.

"Comparing the QoS with a threshold of acceptability" corresponds to "comparing the quality of service with a threshold of acceptability" of the above U.S. Patent claim 1.

"When the QoS is on an unacceptable side of the threshold, increasing the diversity rate" corresponds to "when the quality of service is on an unacceptable side of the threshold, sending additional packets and diversity packets on the network with a

second diversity rate greater than the first diversity rate" of the above U.S. Patent claim 1.

The limitation "when the QoS returns to an acceptable side of the threshold, increasing the source rate" is not taught by claim **1** of the above U.S. Patent.

However, *Hörlin* teaches a method for packet flow control, where for an incoming packet signal, when a proportion of guaranteed resources (QoS) is determined to exceed a given threshold value, the packet sending rate of the sources can be increased as a result of this as spoken of on column 8, lines 52-60.

At the time of the invention, it would have been obvious to someone of ordinary skill in the art, to apply the packet flow control teachings of *Hörlin* to the teachings of claim **1** of the above U.S. Patent 6,757,256, in order to regulate the flow of data in accordance with the QoS as spoken of on column 9, lines 52-60 of *Hörlin*.

Regarding claims **281-294**, the added limitations of these claims similarly correspond to claims **2-5, 7, 8, 10-16, and 18** of the above U.S. Patent 6,757,256, respectively, and are correspondingly rejected.

4. Claim **1** is provisionally rejected on the ground of nonstatutory obviousness-type double patenting as being unpatentable over claim **30** of copending Application No. *10/885,911*. Although the conflicting claims are not identical, they are not patentably distinct from each other because of the following correspondences.

Regarding claim **1**, “a process of sending packets of voice information" corresponds to “a process of sending packets of real-time information" of claim **30** of the above copending application.

“Initially generating at a sender the packets of voice information, the packets of voice information including source packets with an initial source rate greater than zero kilobits per second, and diversity packets with an initial diversity rate, the initial diversity rate being at least zero kilobits per second" corresponds to "initially generating at a sender the packets of real-time information with a source rate greater than zero kilobits per second, and a diversity rate, the diversity rate initially being at least zero kilobits per second" of claim **30** of the above copending application.

“Sending the packets, thereby resulting in a quality of service QoS” corresponds to “sending the packets, thereby resulting in a quality of service QoS” of claim **30** of the above copending application.

“Comparing the QoS with a threshold of acceptability" corresponds to "comparing the QoS with a threshold of acceptability" of claim **30** of the above copending application.

“When the QoS is on an unacceptable side of the threshold, increasing the diversity rate” corresponds to “when the QoS is on an unacceptable side of the threshold increasing the diversity rate” of claim **30** of the above copending application.

Lastly, “when the QoS returns to an acceptable side of the threshold, increasing the source rate” corresponds to “when the QoS returns to an acceptable side of the

threshold then increasing the source rate of the additional packets" of claim **30** of the above copending application.

Claim **1** does not claim "sending not only additional ones of the packets of real-time information, but also sending diversity packets at the diversity rate as increased". Therefore, claim **1** merely broadens the scope of claim **30** of the above copending application.

It has been held that the omission of an element and its function is an obvious expedient if the remaining elements perform the same function as before. See In re Karlson, 136 USPQ 184 (CCPA). Also note Ex parte Rainu, 168 USPQ 375 (Bd. App. 1969). The omission of a reference element whose function is not needed would be obvious to one skilled in the art.

This is a provisional obviousness-type double patenting rejection because the conflicting claims have not in fact been patented.

5. Claim **1** is provisionally rejected on the ground of nonstatutory obviousness-type double patenting as being unpatentable over claim **30** of copending Application No. *10/815,044*. Although the conflicting claims are not identical, they are not patentably distinct from each other because of the following correspondences.

Regarding claim **1**, "a process of sending packets of voice information" corresponds to "a process of sending packets of real-time information" of claim **30** of the above copending application.

"Initially generating at a sender the packets of voice information, the packets of voice information including source packets with an initial source rate greater than zero kilobits per second, and diversity packets with an initial diversity rate, the initial diversity rate being at least zero kilobits per second" corresponds to "initially generating at a sender the packets of real-time information with a source rate greater than zero kilobits per second, and a diversity rate, the diversity rate initially being at least zero kilobits per second" of claim **30** of the above copending application.

"Sending the packets, thereby resulting in a quality of service QoS" corresponds to "sending the packets, thereby resulting in a quality of service QoS" of claim **30** of the above copending application.

"Comparing the QoS with a threshold of acceptability" corresponds to "comparing the QoS with a threshold of acceptability" of claim **30** of the above copending application.

"When the QoS is on an unacceptable side of the threshold, increasing the diversity rate" corresponds to "when the QoS is on an unacceptable side of the threshold increasing the diversity rate" of claim **30** of the above copending application.

Lastly, "when the QoS returns to an acceptable side of the threshold, increasing the source rate" corresponds to "when the QoS returns to an acceptable side of the threshold then increasing the source rate of the additional packets" of claim **30** of the above copending application.

Claim **1** does not claim "sending not only additional ones of the packets of real-time information, but also sending diversity packets at the diversity rate as increased".

Therefore, claim **1** merely broadens the scope of claim **30** of the above copending application.

It has been held that the omission of an element and its function is an obvious expedient if the remaining elements perform the same function as before. See In re Karlson, 136 USPQ 184 (CCPA). Also note Ex parte Rainu, 168 USPQ 375 (Bd. App. 1969). The omission of a reference element whose function is not needed would be obvious to one skilled in the art.

This is a provisional obviousness-type double patenting rejection because the conflicting claims have not in fact been patented.

Allowable Subject Matter

6. Claims **1 and 281-294** are allowable over the prior art of record.

7. The following is a statement of reasons for the indication of allowable subject matter:

Regarding *amended* claim **1**, *Flach et al. (U.S. 5,944,659)* teaches a system and process for packet communication of real-time data including diversity on column 7, lines 20-40.

Krutz et al. (U.S. 6,138,012) teaches the employment of diversity transmission to improve the quality of service in a packet communication system as spoken of on column 2, lines 20-26.

Haartsen (U.S. 6,850,740) teaches a method of time and frequency diversity where a second radio link may be established (for increasing time and frequency diversity) in response to detection by a receiver of reception quality problems

associated with a first radio link. *Haartsen* also teaches that the second radio link may be terminated (decreasing time and frequency diversity) in response to detection by the receiver of an absence of reception quality problems associated with the first radio link as spoken of on column 4, lines 4-12, and column 9, lines 1-10.

Flach, Krutz, Haartsen, and the other prior art of record do not teach "comparing the QoS with a threshold of acceptability", and "when the QoS is on an unacceptable side of the threshold, increasing the diversity rate; and when the QoS returns to an acceptable side of the threshold, increasing the source rate" in combination with the other limitations of *amended* claim **1**.

Regarding claims **281-294**, these claims are further limiting to claim **1** and are thus also allowable over the prior art of record.

Response to Arguments

8. Applicant's arguments with respect to *amended* claim **1** have been fully considered and are persuasive. The prior art rejection of this claim has been withdrawn.

Conclusion

9. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. Ue et al. (U.S. 6,973,289) is another reference considered pertinent to this application.

10. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP

§ 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to MICHAEL J. MOORE, JR., whose telephone number is (571)272-3168. The examiner can normally be reached on Monday-Friday (7:30am - 4:00pm).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Wing F. Chan can be reached at (571) 272-7493. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system.

Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is

available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov.

Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Wing F Chan/
Supervisory Patent Examiner, Art Unit 2619
3/14/08

/M. J. M./
Examiner, Art Unit 2619